

CHERNYSHEV, I. N.; ZHUMATOV, Kh. Zh.; ORLOVA, S. K.

Virological investigations into the etiology of membranous conjunctivitis in infants. Acta virol. (Praha) [Eng] 6 no.1:89-90 Ja '62.

1. Dept. of Virology and Rickettsioses, Kazakhstan Institute of Epidemiology, Microbiology and Hygiene, and Chair of Children's Infectious Diseases, Kazakhstan Medical Institute, Alma-Ata, U.S.S.R.

(ADENOVIRUSES).

ZHUMATOV, Kh. Zh.

Problems of viral biosynthesis. Vest. AN Kazakh. SSR 18 no. 5:
10-19 My '62.

I. Chlen-korrespondent AN Kazakhskoy SSR.

(MIRA 17:10)

ZHUMATOV, Kh.Zh.; KOSTINA, K.A.; DARDIK, F.G.

Prospects for eradicating poliomyelitis in the Kazakh
S.S.R. Zdrav. kazakh. 22 no.1:57-62 '62.

(MIRA 15:3)

1. Iz Kazakhskogo instituta epidemiologii, mikrobiologii i
gigieny (direktor - kand.med.nauk K.A. Kostina),
(~~KAZAKHSTAN~~—POLIOMYELITIS—~~PREVENTION~~)

ZHUMATOV, Kh.Zh., prof.

Theory of the viral origin of cancer in the light of the work
of the Eighth International Anticancer Congress. Zdrav.Kazakh.
22 no.11:59-60 '62.

(ONCOLOGY--CONGRESSES)

(MIRA 16:2)

ANAN'YEV, V.; ZHUMATOV, Kh.Zh.

Brief news. Vop. virus 8 no.2:251-255 Mr-Ap'63 (MIRA 16:12)

ZHUMATOV, Kh.Zh.; BISENOVA, M.I.

Materials on the experimental study of the pathogenesis of
mixed infection (viral and bacterial); (preliminary report).
Trudy Inst. mikrobiol. i virus. AM Kazakh. SSR 7:243-249'63
(MIRA 16:12)

ZHUMAJOV, Kh. Zh.

"Nekotorye metodologicheskiye voprosy traktovki prirody virusov."

report presented at Symp on Virus Diseases, Moscow, 6-9 Oct 54.

Institut mikrobiologii i virusologii AN KazSSR, Alma Ata.

ZHUMATOV, Kh.Zh.; SAYATOV, M.Kh.

Chromatography of influenza viruses A and A2 with ant'-influenza serum and a biologically neutral complex of virus-antibody with Sephadex G-200. Vop. virus. 9 no.5:555-559 S.O '64,

(MIRA 18:6)

1. Institut mikrobiologii i virusologii AN Kazakhskoy SSR, Alma-Ata.

ZHUMATOV, Kh.Zh.; ISAYEVA, Ye.S.

Infective ribonucleic acids of viruses from animals and man.
Vest. AN Kazakh. SSR 20 no.6:39-46. Je '64 (MIRA 18:1)

1. Chlen-korrespondent AN KazSSR and AMN SSSR (for Zhumatov).

L 39516-66 EWT(1)/T GD/JK

ACC NR: AP6014663

SOURCE CODE: UR/0031/65/000/002/0054/0058

AUTHOR: Zhumatov, Kh. Zh.; Sayatov, M. Kh.; Isayeva, Ye. S.

ORG: none

TITLE: Investigations of the infectious activity of RNA⁶ of influenza^b A virus in susceptible animals

SOURCE: AN KazSSR. Vestnik, no. 2, 1965, 54-58

TOPIC TAGS: virology, virus disease, RNA, mouse, antigen

ABSTRACT: Intranasal injection of RNA of influenza A virus (Pr-3 strain) diluted 1:8 in 0.15 M NaCl in 0.007 M phosphate buffer causes influenza which kills white mice in the first passage. Undiluted RNA generally does not have this effect. When RNA solution is injected into white mice and chick embryos, virus is reproduced with the antigenic properties characteristic of the original virus. Mouse strains of influenza virus resynthesized from RNA had a lower hemagglutination and infection titer than did a strain obtained from RNA after inoculation of chick embryos. Orig. art. has: 3 tables. [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 010 / OTH REF: 007

SAYATOV, M.Kh.; ZHUMATOV, Kh.Zh.

Reactivation of influenza virus from neutral complex with
immune serums. Izv. AN Kazakh. SSR, Ser. biol. nauk 3, no.3;
47-53 My-Je '65. (MIRA 18:9)

ZHUMATOV, Kh.Zh.

Recent data on the molecular structure of viruses, Vest. AN Kazakh
SSR 21 no.3:28-39 Mr '65. (MIRA 18:5)

1. Chlen-korrespondent AMN SSSR i AN KazSSR.

AKHMATULLINA, N.B.; ZHUMATOV, Kh.Zh.

One method of studying the initial stage of the formation of
the influenza virus in the cell. Vest. AN Kazakh. SSR 21
no.9:74-76 'S '65. (MIRA 18:9)

SAYATOV, K.Kh.; ZHUMATOV, Kh.Zh.

Separating the virus-antibody complex by filtration through
a sephadex gel. Vest. AN Kazakh, SER 21 no.10 62-84 0 '65.
(HIRA 18:12)

ZHUMATOV, Kh.Zh.; MAKHMETOV, M.M.

Materials on the study of the incidence of Q rickettsiosis
in wild animals and birds in some districts of Virgin Terri-
tory. Med. paraz. i paraz. bcl. 34 no.3:291-293 My-Je '65.

(MIRA 18:7)

1. Kazakhskiy institut epidemiologii, mikrobiologii i gigieny,
Alma-Ata.

AM4020389

BOOK EXPLOITATION

S/0784

Yermolenko, N. N. (Candidate of Technical Sciences, Docent); Zhumina, L. A.
(Candidate of Technical Sciences, Docent) (Editors)

Synthesis of glasses and silicate materials (Sintez stekol i silikatnykh materialov) Minsk, Izd-vo MVSS i PO BSSR, 1963. 133 p. illus., biblio. 2000 copies printed. Editor: Nekhay, V. T.; Technical editor: Kislyakova, M.N.; Proofreader: Dubovik, L. A. (At head of title: Ministerstvo vysshego, srednego spetsial'nogo i professional'nogo obrazovaniya BSSR. Belorusskiy politekhnicheskiy institut)

TOPIC TAGS: glass, silicate material, glass crystallization, glass technology, property of glass, enamels, building material, vitreous system, enamel pigment

PURPOSE AND COVERAGE: This book was written by a collective of authors from the Problemnaya laboratoriya Stekla i Silikatov of the Belorusskiy Politekhnikheskiy Institut, and reflects the results of research performed over a number of years in the Laboratory. Problems of the synthesis of glass and study of its properties in different vitreous systems are analyzed, beginning with three-component and

AM4020389

ending with six-component systems; research on the crystallization properties of glasses synthesized on the basis of the low-melting clays of Belorussia is described, the results of research on the application of easily available raw material to glass technology are presented, and the dependence of certain properties of glasses on their chemical composition is shown. Two sections are devoted to the production of pigments for enamels and study of the properties of building materials. The technology and basic parameters of new types of glass, enamel, and ceramic material are described.

TABLE OF CONTENTS:

Foreword	-- 3
Ch. I. Synthesis and study of the properties of glasses in vitreous systems	--
I. Three-component systems	-- 4
II. Four-component systems	-- 18
III. Five-component systems	-- 32
IV. Six-component systems	-- 48

AM4020389

Ch. II. Crystallization capacity of glasses synthesized on the basis of low-melting clays -- 55

Ch. III. Utilization of easily available raw material in glass technology --

72

Ch. IV. Investigation of the properties of glass -- 93

Ch. V. Producing pigments for enamels -- 108

Ch. VI. Study of the properties of building materials -- 116

Literature -- 128

SUB CODE: MT

SUBMITTED: 16Sep63

NR REF SOV: 115

OTHER:029

MAZELEV, L.Ya.; ZHUMINA, L.A.; YERMOLENKO, N.N.

"A guide to the technology of glass" by N.M. Pavlushkin, G.G.
Sentiurin. Reviewed by L. IA. Mazelev, L.A. Zhumina, Ermolenko.
Stek. 1 ker. 15 no.12:43-44 D 158. (MIRA 11:12)
(Glass manufacture)

ZHUMINA, L.A.

USSR/Chemical Technology. Chemical Products and Their
Application - Silicates, Glass, Ceramics, Binders.

I-9

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12524

Author : Zhumina L.A., Makarevich G.A.

Inst : Belorussian Polytechnic Institute

Title : Selection of Slag-Glass Compositions

Orig Pub : Sb. nauch. rabot Belorus. politekhn. in-ta, 1956, No 55,
72-80

Abstract : Description of work as a result of which it was ascertained that Na_2O is the best addition to slag in making glass therefrom. Determination of the optimal amount of Na_2O requires a separate study.

RAUTENSHTEYN, Ya.I.; KLEPIKOVA, F.S.; ZHUNAYEVA, V.V.; PANICEKINA, T.B.

Characteristics of the lysogenic culture of *Actinomyces spheroides* strain 35 producing novobiocin and its temperate actinophage. *Mikrobiologiya* 34 no.5:828-834 S-O '65.

(MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov Ministerstva zdravookhraneniya SSSR, i Institut mikrobiologii AN SSSR.

ZHUNDANOV, L.E.

Irkutsk State Anti-Rinderpest Institute of Siberia and Far East.

"Description of yeast from kurunga (a sour milk product)."

SO: MIKROBIOLOGIA, Vol 20, No. 2, March/April, 51.

SAVEL'YEV, B.A.; ZHUNEV, A.G.

Efficient use of roasted Bakal deposit siderites in blast furnace
burdening. Stal' 21 no. 6:498 Je '61. (MIRA 14:5)
(Blast furnaces)

ZHUNEV, A.G.; SAVEL'YEV, B.A.; KOLESANOV, F.F.; VINOGRADOV, A.I.;
YUFEROV, A.I.; VEDERNIKOV, N.P.; SERIN, P.A.; VEDERNIKOVA, L.N.

Preparation of Bakal siderites for blast furnace smelting
by means of roasting. [Sbor. trud.] Nauch.-issl.inst.met.
no.4:33-43 '61. (MIRA 15:11)

(Bakal region—Siderite)
(Ore dressing)

ZHUNEV, A.G.; KOLESANOV, F.F.

Removal of sulfur during the roasting of Bakal siderites.

Stal' 25 no.8:791-794 S '65.

(MIRA 18:9)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.

KOTELEVSKIY, Yu.M.; ZHUNEV, P.A.

Lapping paste and special coatings for cranes made of acid-resistant steels. Mash. i nef. obr. no. 11:43-44 '63
(MIRA 17:7)

1. Moskovskiy filial tsentral'nogo konstruktorskogo byuro armaturestroyeniya.

ZHUNEV, P.A.; EKSLEK, L.I.; BRODOTSKAYA, I.Z.

Coefficients of friction in lubricated valves. Mash. i nef. 18:12
obor. no. 11:23-24 '65. (MIRA 18:12)

1. Moskovskiy filial Tsentral'nogo konstruktorskogo byuro
armaturestroyeniya.

ZHUNEV, P.A.; KOTELEVSKIY, Yu.M.; EKSLER, L.I.

Calculating the optimal width of a packing box for gland
cocks. Mash. i nef. obor. no.4:10-12 '64. (MIRA 17:6)

1. Moskovskiy filial TSentral'nogo konstruktorskogo byuro
armaturostroyeniya.

ZHUNEV, P.A.; KOTELEVSKIY, Yu.M.; EKSLER, L.I.

Designing ball gland cocks. Mash. i naft. obor. no.3:
10-15 '64. (MIRA 17:5)

1. Moskovskiy filial Tsentral'nogo konstruktorskogo byuro
armaturostroyeniya.

ZHUNEV, V.S.

Excursions in a working youths' school. Geog. v shkole 18
no.3:50-51 My-Je '55. (MIRA 8:9)
(School excursions)

ZHUNGIYETU, G.I.; VOLOVEL'SKIY, L.N.; DOROFYENKO, G.N.; LAZUR'YEVSKIY, G.V.

Pyrylium derivatives on the basis of steroid hydroxymethylketones.
Khim. prirod. soed. no.5:318-321. '65. (MIRA 18:12)

1. Institut khimii AN Moldavskoy SSR, Rostovskiy-na-Donu gosudarstvennyy universitet i Ukrainskiy institut eksperimental'noy endokrinologii. Submitted March 19, 1965.

DOROFYENKO, G.N.; LAZUR'YEVSKIY, G.V., akademik; ZHUKGIYETI, G.M.

Synthesis of pyrylium salts by the condensation of hydroxy-methylenecyclohexanone with ketones. Dokl. AN SSSR 161 no.2: 355-357 Mr '65.

(MIRA 18:4)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Institut khimii AN Moldavskoy SSR. 2. AN Moldavskoy SSR (for Lazur'yevskiy).

ZHUNGIYETU, G.I.; DOROFYENKO, G.N.; LAZUR'YEVSKIY, G.V., akademik

Synthesis of 17-methyldihydrotestosterone derivatives condensed with
pyrylium and pyridinium cycles. Dokl. AN SSSR 163 no.2:372-374 J1 '65.

(MIRA 18:7)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Institut khimii
AN MSSR. 2. AN MSSR (for Lazur'yevskiy).

DOROFYENKO, G.N.; ZHUNGIYETU, G.I. [Junghiatu, G.I.]

Perchloric acid and its compounds as catalysts in organic synthesis.
Part 22: Synthesis of pyrylium salts from compounds with a tertiary
carbon atom. Zhur. ob. khim. 35 no.6:963-967 Je '65.

(MIRA 18:6)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Institut
khimii AN Moldavskoy SSR.

DOROFYENKO, G.N.; ZHUNGIYETU, G.I.

Synthesis of pyrylium salts from hydrocarbons with tertiary
carbon atoms. Zhur. ob. khim. 34 no.7:2469-2470 J1 '64
(MIRA 17:8)

1. Rostovkiy-na-Donu gosudarstvennyy universitet i Institut
khimii AMN SSSR.

DOROFEYENKO, G.N.; ZHUNGIYETU, G.I.

Method of the synthesis of pyrylium salts by condensation of
oxymethylene ketones with ketones. Zhur. ob. khim. 35 no.3:
589-590 Mr '65. (MIRA 18:4)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i. Institut
khimii AN Moldavskoy SSR.

ZHDANOV, Yu.A.; KOROL'CHENKO, G.A.; DOROFEYENKO, G.N.; ZHUNGIYETU, G.I.

Some properties of the perchlorates of acetylated monosaccharides in the synthesis of O-glycosides. Dokl. AN SSSR 154 no.4:861-863 F '64. (MIRA 17:3)

1. Rostovskiy-na-Donu gosudarstvennyy universitet. Predstavleno akademikom B.A. Kazanskim.

ZHUNIKOVA, T.L.

Finishing the panel elements of furniture with paints of high covering power by the flow-coating method. Dar. prom. 11 no. 84-6 Ag '62.

(MIRA 17:2)

1. Tsentral'nyy nauchno-issledovatel'skiy institut fanery i mebeli.

VOROB'YEV, V., inzh.; ZHUNIN, A., inzh.; SPIROV, V., inzh.;
FOMCHENKOV, I., inzh.

Building made of light alloys. Na stroi. Ros. no.10:37-38
O '61. (MIRA 14:11)
(Moscow--Aluminum, Structural)

CR

17

Pyrochemical processes occurring during the melting of a sulfate batch containing lime and silica. L. A. Zhurav (L.V. Zhurav, Byelorussian Polytech. Inst., Doklady Akad. Nauk S.S.S.R. 73, 153-5 (1960)). Expts. were conducted with 5-g. samples. The batch consisted of quartz sand 75.0, CaCO_3 17.50, Na_2SO_4 54.35, and coal 2.23 parts corresponding to glass of SiO_2 75, CaO 10, and Na_2O 15%. In addition, the following were also studied: Na_2SO_4 , CaCO_3 , C , Na_2SO_4 + C , Na_2SO_4 + CaCO_3 , Na_2SO_4 + SiO_2 , Na_2SO_4 + C + CaCO_3 , Na_2SO_4 + CaCO_3 + SiO_2 , and Na_2SO_4 + SiO_2 + C . Thermal treatment was by dynamic and isothermal methods. In the dynamic method, the mixts. were gradually heated from 20 to 1300° at 5°/min. and loss of wt. was detd. at definite intervals. In the isothermal method, mixts. were held for 1, 2, and 3 hrs. in a reducing atm. in a furnace previously heated to a given temp. (300, 600, 560, 600, 700, 800, 900, 1000, 1100, 1200, and 1300°), then removed, and the loss of wt. was detd. as a function of temp. and time. Initial decompn. of coal and volatilization of its components were observed at 350°; the loss in wt. of coal prior to reaction with Na_2SO_4 (500°) was about 80%. Initial reaction between the components in solid phase was at 400° and was shown by the shrouding of the Na_2SO_4 grains with coal. Initial weak decompn. of CaCO_3 was at 400°. It increased slightly up to 600°, and was complete at 800°. Reduction of Na_2SO_4 proceeds to Na_2S ; the compd. Na_2SO_4 was not detected. Initial slight formation of Na_2S was at 500°; up to 600° reduction of Na_2SO_4 was inconsiderable.

During 600-800° reduction proceeded rather actively; at 800° and higher concn. of Na_2S in the melt was observed. Reduction of Na_2SO_4 with coal proceeds up to 800°; above this temp. Na_2S crystals were not observed. As a result of the melting of the eutectic, the liquid phase is formed in a small amt. and reduction of Na_2SO_4 continues. Na_2S oxidizes easily even in a weakly oxidizing atm.; oxidation proceeds to Na_2SO_4 . During the melting of the batch, about 12% of Na_2CO_3 is formed; soda formation starts at 500°. The double salt $\text{Na}_2\text{Ca}(\text{CO}_3)_2$ was not detected. Initial alkali formation in the batch corresponds to 500°. Slight acceleration was observed at temps. up to 700°, and with further rise in temp., reactions proceeded intensively. Initial very slight glass formation occurs at 740° owing to the formation of eutectics and, as temp. rises, glass formation is intensified. The greatest rate of these reactions was during the first hr. of holding period; further prolongation of the holding period affected the process to a small extent.

R. Z. Kamich

1951

CA

19

Leaching-out of window glass during storage. M. A. Benborodov and L. A. Zhurina. *Steklo i Keram.* 8, No. 8, 8-9 (1981).—The index of glass stability (A) under conditions of moist storage is detd. from $A = [a\text{Na}_2\text{O} + b\text{K}_2\text{O} + c\text{MgO}] / [d\text{Al}_2\text{O}_3 + e\text{Fe}_2\text{O}_3]$ where $a, b, c, d, e,$ and f are the % of $\text{Na}_2\text{O}, \text{K}_2\text{O}, \text{MgO}, \text{Al}_2\text{O}_3,$ and Fe_2O_3 , resp. This formula is applicable to 8-component glasses having SiO_2 70-74, Al_2O_3 0-8, CaO 7-18, MgO 0-1, and Na_2O 18-19%. Glass is classified as follows: group I ($A < 10.8$) can be stored for long periods under moist conditions without showing signs of deterioration; group II ($A > 10.8$ and < 18.6) deteriorates depending on conditions; group III ($A > 18.6$) must be stored under moisture-free conditions. A nomogram is given for detg. the group of a given glass.
B. E. Kamich

ZHUNINA, L.A.

Category : USSR/Atomic and Molecular Physics - Liquids

D-8

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 6442

Author : Zhunina, L.A., Bobkova, N.M.

Title : Physico-Chemical Properties of Slag Glass

Orig Pub : Sv. nauch. rabot. Belorus. politekhn. in-t, 1956, vyp.
55, 81-87

Abstract : No abstract

Card : 1/1

ZHUNINA, I. A.; MAKAREVICH, G. A.

Selecting compositions for slag glass. Sbor. nauch. rab. Bel. politekh.
inst. no. 55:72-80 '56. (MIRA 10:7)
(Glass manufacture--Chemistry)

ZHUNINA, L.A.

TARASENKA, V.R., kandydat gistorychnykh navuk; *ZHUNINA, L.A.*, kandydat tekhnichnykh navuk; YERMOLENKA, N.N., kandydat tekhnichnykh navuk.

("Glass manufacture in ancient Russia" by M.A. Bezborodov. Reviewed by V.R. Tarasenko, L.A. Zhunina, N.N. Ermolenka). Vestsi AN BSSR, Ser. fiz.-tekh. nav. no.1:161-163 '57. (MIRA 10:6)
(Glass manufacture--History) (Bezborodov, M.A.)

BEZBORODOV, M.A., akademik, prof.; ZHUNINA, L.A., kand.tekhn.nauk, dots.;
GUBSKIY, G.Z., inzh.

Optimum conditions for agglomerating of batches of sheet glass.
Sbor.nauch.rab.Bel.politekh.inst. no.63:63-74, 1458 (MIRA 12:4)

1. AN BSSR (for Bezborodov)
(Glass manufacture)

ZHUNINA, L.A., kand.tekhn.nauk, dots.; KULAKOV, S.S., inzh.

Manufacturing dark colored glass from waste materials from
the manufacture of polished and armored glass. Sbor.nauch.rab.
Bel.politekh.inst. no.63:75-85 '58. (MIRA 12:4)
(Glass manufacture)

ZHUNINA, L.A., kand.tekhn.nauk, dots.; MALASHENKO, K.Ye., inzh.

Utilization of peat slags from gas producer stations in the
manufacture of dark glass for bottles. Sbor.nauch.rab.Bel.
Politekh.inst. no.63:86-94 '58. (MIRA 12:4)
(Gas manufacture and works--By-products)
(Glass manufacture)

ZHULAINA, L. A.

PHASE I BOOK EXPLOITATION

BOV/4578

Minsk. Belorusskiy politekhnicheskiy institut

Khimiya, tekhnologiya i istoriya stekla i keramiki (The Chemistry, Technology, and History of Glass and Ceramics) Minsk, Red.-izd. otdel BPI imeni I. V. Stalina, 1960. 138 p. (Series: Its: Sbornik nauchnykh trudov, vyp. 86) 1,200 copies printed.

Sponsoring Agencies: Ministerstvo vysshego, srednego spetsial'nogo i professional'nogo obrazovaniya BSSR; Belorusskiy politekhnicheskiy institut imeni I. V. Stalina.

Editorial Board: N. N. Yermolenko, Candidate of Technical Sciences, I. S. Kachan, and L. K. Petrov; Ed.: N. V. Kapranova; Tech. Ed.: S. A. Pesina.

PURPOSE: This book is intended for chemists and physicists interested in the composition, structure, and properties of glass and ceramics.

~~Card 1/6~~

194

BEZBORODOV, M.A., akademik; YERMOLENKO, N.N., kand.tekhn.nauk;
ZHUNINA, L.A., kand.tekhn.nauk; NOVIKOV, Ye.Z., inzh.

Light refraction and crystallizing capacity of glasses distributed
in some sections of the system $\text{Na}_2\text{O} - \text{CaO} - \text{BaO} - \text{ZrO}_2 - \text{SiO}_2$.
Sbor. nauch. trud. Bel. politekh. inst. no.82:29-33 '60.

(MIRA 15:5)

(Glass research) (Systems (Chemistry))

ZHUNINA, L.A., kand.tekhn.nauk; KRIPSKIY, A.M., inzh.; NOVIKOVA, Ye.Z.

Preparation of crystalline glass material from easily melting
White Russian clays. Sbor. nauch. trud. Bel. politekh. inst.
no.82:79-85 '60. (MIRA 15:5)
(Glass manufacture) (White Russia--Clay)

ZHUNINA, L.A., kand.tekhn.nauk; YERMOLENKO, N.N.

Derivation of formulas for leadless crystal. Sbor. nauch.
trud. Bel. politekh. inst. no.82:94-99 '60. (MIRA 15:5)
(Crystals)

ZHUNINA, L.A., kand.tekhn.nauk; MIKHLIYUKOV, Ye.I., inzh.; KUSONSKIY, G.G.,
inzh.

Using easily melting clay for glass containers production.

Sbor. nauch. trud. Bel. politekh. inst. no.82:100-111 '60.

(MIRA 15:5)

(Glass containers)

ZHUNINA, L.A., kand.tekhn.nauk (Minsk)

Physical and chemical processes in glass formation. Sbor. nauch. trud.
Bel. politekh. inst. no.86:3-11 '60.

(MIRA 13:10)

(Glass manufacture--Chemistry)

New glass for high-voltage insulators S/143/60/000/007/011/012/XX
D271/D305

Glass insulators are made of widespread cheap raw materials; 4) The technology of glass insulators permits overall automation of the production process at lower costs than those for porcelain insulators; 5) The application of hardened suspension glass insulators eliminates the need for their inspection during the service by means of a rod or other methods; 6) Testing finished hard glass insulators is much simpler than testing porcelain insulators and can be fully mechanized; 7) Capital investments are lower than for a comparable volume of production of porcelain insulators. Studies on optimum glass composition for high-voltage insulators are being carried out at the Belorussian Polytechnic Institute. Based on preliminary experiments it was decided to seek such an optimum composition in the $\text{SiO}_2\text{-Al}_2\text{O}_3\text{-CaO-MgO-NaO}$ system. As raw materials for glass of this system such widespread materials can be used as quartz sand, kaolin, dolomite, limestone, manganese ore. Nine sand-kaolin-chalk-dolomite-pyrosulite and three sand-kaolin-dolomite-pyrolusite mixtures (Table 1) were processed under the following conditions: charge beginning at 1300°C , charge end at 1200°C , temperature raised over 1 hour to $1380\text{-}1420^\circ\text{C}$, exposure at this tem-

New glass for high-voltage insulators S/143/60/000/007/011/012/XX
D271/D305

perature during 0.5 - 1 hour, temperature reduction to 1300° during 1 hour, yield at 1300-1320°C. It was established that almost all types of glass of this series show good processing properties; they can be easily cast, pressed, rolled and drawn to threads. The interval of technological viscosity is sufficient for products of a complex configuration. The following characteristics of the glass types were investigated: 1) Technological characteristics: founding and yielding capacities (visually); 2) Physico-chemical properties: crystallizing capacity (polythermic method), softening temperature (I.I. Kitaygorodskiy's device) [Abstracter's note: Not described] specific gravity, thermal resistance (air-water method), linear expansion coefficient (tubular dynamometer), chemical resistance to water and to binormal sodium solution (powder method recommended by VNIIS); 3) Mechanical characteristics: microhardness and microtransparency (ПМТ (PMT) -3 device); 4) Electric characteristics, determined according to GOST 6433-52: specific resistance (galvanometer and F-57 ohmmeter), dielectric phase angle tangent and dielectric permeability (МДП (MDP) high-voltage bridge), electric strength (60 kilovolts, 5 kilowatts testing unit). Four glass

New glass for high-voltage insulators S/143/60/000/007/011/012/XX
D271/D305

compositions with the best technological, physico-chemical and electric properties have been selected for further tests under industrial conditions. There are 2 tables and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

Table 1 Legend:

(1) Composition of experimental charges and glass
(2) Number of glass; (3) Sand;
(4) Kaolin; (5) Charge (weight);
(6) Chalk; (7) Dolomite; (8) Pyrolusite; (9) Glass (weight %).

Номера стекла (2)	Шихты, вес. ч.					Стекла, вес. % (9)				
	Песок (3)	Каолин (4)	Мел (6)	Доломит (7)	Пиролу- зит (8)	SiO ₂	Al ₂ O ₃	CaO	MgO	MnO
19/I	31,47	12,65	10,90	45,72	11,12	55,30	5,00	20,00	10,00	10,00
19/II	31,47	12,65	1,94	45,72	16,65	55,00	5,00	15,00	10,00	15,00
19/III	43,20	25,40	14,28	22,86	16,65	55,00	10,00	15,00	5,00	15,00
19/IV	32,04	25,40	—	68,58	5,55	55,00	10,00	15,00	10,00	5,00
19/V	37,34	37,95	1,94	45,72	5,55	55,00	15,00	15,00	5,00	10,00
19/VI	37,34	37,95	14,28	22,86	11,12	55,00	15,00	15,00	5,00	5,00
19/VII	31,47	50,60	14,28	22,86	5,55	55,00	20,00	15,00	5,00	5,00
19/VIII	37,34	37,95	—	68,58	5,55	55,00	15,00	10,00	15,00	5,00
19/IX	37,34	37,95	—	45,72	11,12	55,00	15,00	11,00	11,00	10,00
19/X	37,34	37,95	9,52	22,86	16,65	55,00	15,00	10,00	5,00	15,00
					5,55	55,00	15,00	20,00	5,00	5,00

New glass for high-voltage insulators S/143/60/000/007/011/012/XX
D271/D305

ASSOCIATION: Belorusskiy politekhnicheskiy institut (Belorussian
Polytechnic Institute)

PRESENTED: On February 16, 1960 by the Kafedry tekhnologii stekla
i silikatov i tekhniki vysokikh napryazheniy (Depart-
ments for Glass and Silicate Technology and High-Vol-
tage Engineering)

Card 5/5

ZHUNINA, L.A.; YERMOLENKO, N.M.

N.M.Ermolenko. Stek.1 ker. 17 no.4:48 Ap '60.

(MIRA 13:8)

(Glass construction)

YERMOLENKO, N.N., kand. tekhn. nauk, dots., red.; ZHUNINA, L.A.,
kand. tekhn. nauk, dots., red.; NEKHAY, V.I., red.;
KISIYAKOVA, M.N., tekhn. red.

[Synthesis of glass and silicate materials] Sintez stekol
i silikatnykh materialov. Pod red. N.N.Ermolenko, L.A.Zhuninoy
Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i profes-
sional'nogo obrazovaniia BSSR, 1963. 133 p. (MIRA 17:1)

1. Minsk. Belorusskiy politekhnicheskiy institut.
(Glass) (Enamel and enameling)
(Building materials)

ACCESSION NR: AT4019318

S/0000/63/003/001/0178/0180

AUTHOR: Zhunina, L. A.; Sharay, V. N.; Tsitko, V. F.; Khripkova, N. N.

TITLE: Crystallization of glasses with the composition CaO-MgO-alumina-silica in the presence of chromium oxide with the formation of the stable pyroxene phase

SOURCE: Simpozium po stekloobraznomu sostoyaniyu. Leningrad, 1962. Stekloobraznoye sostoyaniye, vy*p. 1: Katalizirovannaya kristallizatsiya stekla (Vitreous state, no. 1: Catalyzing crystallization of glass). Trudy* simpoziuma, v. 3, no. 1. Moscow, Izd-vo AN SSSR, 1963, 178-180

TOPIC TAGS: glass, glass crystallization, catalyzed crystallization, aluminosilicate, pyroxene chromium oxide

ABSTRACT: In continuation of earlier work at the Problemnaya laboratoriya stekla Belorusskogo politekhnicheskogo instituta (Glass Laboratory of the Belorussian Polytechnical Institute) with catalysts such as SnO_2 , P_2O_5 , ZnO , ZrO_2 , CaF_2 , NiO , CaO , TiO_2 and Cr_2O_3 , all but the last two of which were ineffective, the authors investigated the crystallization of glasses of the system $\text{CaO-MgO-Al}_2\text{O}_3\text{-SiO}_2$ with or without the addition of Cr_2O_3 (0.1-5%). Two mineral phases were produced: spinellid and pyroxene. After the

Card

1/3 *

ACCESSION NR: AT4019316

formation of spinellids at 650-850C, the main mineral phase, pyroxene, was formed. The course of crystallization depending on the amount of Cr_2O_3 added, temperature and time is shown in the Enclosure. The role of Cr_2O_3 in the crystallization process has thus been clarified. Its addition gives rise to the formation of chromium spinellids, which are more stable in silicate media than the system without chromium, and which play the role of crystallization centers for the main pyroxene phase. Since the amount of spinellids depends on the temperature of crystallization, the composition of the pyroxene phase also varies and attains the calculated composition at their minimal content. The variation in pyroxene composition is confirmed by the varying chemical stability of glasses depending on the Cr_2O_3 content and temperature. By increasing the crystallization time, all these phenomena can be shifted to lower temperatures, thus increasing the number of crystallization centers and producing structures of smaller grain size. Orig. art. has: 1 figures.

ASSOCIATION: None

SUBMITTED: 17May63

DATE ACQ: 21Nov63

ENCL: 01

SUB CODE: MT

NO REF SOV: 006

OTHER: 000

Card 2/3

ACCESSION NR: AT4019316

ENCLOSURE: 01

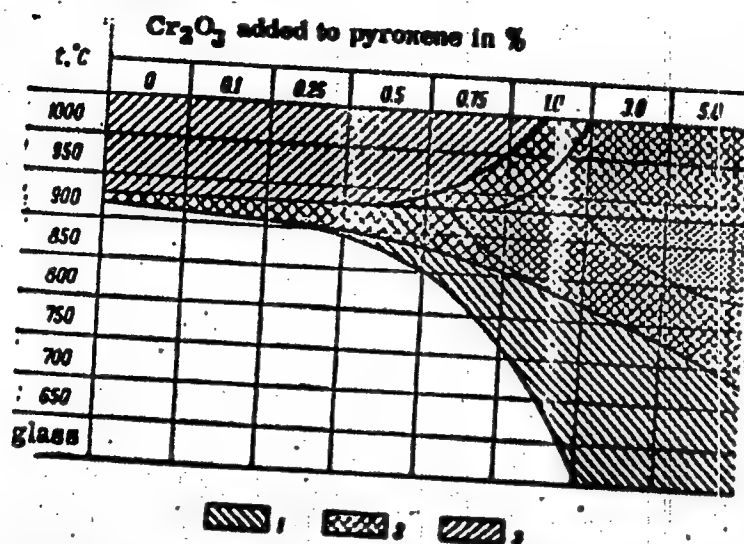


Fig. 1 - Crystallization diagram of glass of the system $\text{SiO}_2\text{-R}_2\text{O}_3\text{-R}_2\text{O}$ (4 hours).
1 - spinelite; 2 - spinelite + pyroxene; 3 - pyroxene

Card 3/3

L 38864-66 EWT()/EWP() WH/WW

ACC NR: AR6015906

SOURCE CODE: UR/0031/65/000/022/B066/B066

AUTHOR: Zhulina, L. A.; Sharay, V. N.; Tsitko, V. F.; Khripkova, N. N.; Luk'yanova, T. T.; Mazurenko, V. D.

TITLE: Crystallization of glasses in the CaO-MgO-SiO₂ system in the presence of other components 42
B

SOURCE: Ref. zh. Khimiya, Abs. 22B478

REF SOURCE: Sb. Stekloobrazn. sostoyaniye. T. 3. Vyp. 4. Minsk, 1964, 69-74

TOPIC TAGS: glass, calcium oxide, magnesium oxide, silicon dioxide, crystallization

ABSTRACT: Dilatometric, petrographic, and x-ray diffraction methods were used to study the crystallization of glasses in the CaO-MgO-SiO₂ system in the presence of Al₂O₃, Fe₂O₃, Cr₂O₃, MgO, and Na₂O. It was found that Cr₂O₃ and Fe₂O₃ accelerate the process of formation of the spinel phase, which forms numerous centers around which the main pyroxene phase crystallizes. Na₂O has a direct catalytic effect on the pyroxene phase and promotes the ordering of the process of pyroceramization as a whole. It is recommended that the three catalysts Cr₂O₃, Fe₂O₃, and Na₂O be added simultaneously. Ya. Shenkin. [Translation of abstract].

SUB CODE: 07,11

L 38732-66 EWT(m)/EWP(e) WH
 ACC NR: AP6007526 (A) SOURCE CODE: UR/0419/65/000/002/0127/0130
 AUTHOR: Yahlov, V. N.; Zhunina, L. A.
 ORG: None
 TITLE: Use of differential thermal analysis for determining the optimum quantity of crystallization stimulator
 SOURCE: AN BSSR. Vestsi. Seryya khimichnykh navuk, no. 2, 1965, 127-130
 TOPIC TAGS: catalyzed crystallization, chromium oxide, thermal analysis method, pyrometer, glass, *PyROMETRY*
 ABSTRACT: Differential thermal analysis is used for determining the effect of Cr_2O_3 on the pyroceramic-forming ability of glass in the SiO_2 - MgO - CaO - Al_2O_3 - Fe_2O_3 - Na_2O system with a high concentration of MgO . The crystallization stimulator was introduced in the form of $(\text{NH}_4)_2\text{Cr}_2\text{O}_7$ in quantities of 0.4, 0.5, 0.6, 0.7, 0.8 and 0.9% (above 100%). The experimental glass was founded in 100-gram corundum crucibles in an electric furnace at 1450°C for 1.5 hours. It was then poured onto a metal plate where it was cooled to room temperature. Preliminary crystallization of the various types of glass in a gradient furnace at 400 - 1200°C showed volumetric crystallization in all specimens. A Kurnakov *PK-59* pyrometer was used for taking the thermograms. It was found that the shape, magnitude and temperature of the endo- and exothermic effects

L-38732-66

ACC NR: AP6007526

are strongly dependent on the amount of crystallization stimulator added. An analysis of the experimental data shows that the optimum concentration of crystallization stimulator (Cr_2O_3) is 0.7% (above 100%). This experiment indicates that differential thermal analysis may be successfully used for determining the optimum quantity of crystallization stimulator in some types of glass in the $\text{SiO}_2\text{-MgO-CaO-Al}_2\text{O}_3\text{-Fe}_2\text{O}_3\text{-Na}_2\text{O}$ system. It may be assumed that the method is applicable to other systems as well. Orig. art. has: 3 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 004

L 40338-66 EWT(m)/EWP(e) WH/WW

ACC NR: AP6007522

(A)

SOURCE CODE: UR/0419/65/000/002/0041/0045

AUTHOR: Kitayharodski, I. I. (Deceased); Zhunina, L. A.; Kuz'myankow, M. I.

ORG: None

TITLE: Mechanism of pyroceramic conversion of glass in the liquation region of the $\text{CaO-MgO-SiO}_2+(\text{R}_2\text{O}; \text{R}_2\text{O}_3)$ system

SOURCE: AN BSSR. Vestsi. Seryya khimichnykh navuk, no. 2, 1965, 41-45

TOPIC TAGS: silicate glass, ceramic material, pyroceramic, fluoride, liquation, thermal analysis

ABSTRACT: The authors study the process of pyroceramic conversion of glass in the ternary CaO-MgO-SiO_2 system with various concentrations of fluoride added in the form of NaF in various amounts above 100 wt.% during founding for 4 hours at a maximum temperature of 1480°C. Electron photomicrographs of this glass show a large number of nonhomogeneities with dimensions of 0.1 μ indicating active liquation of the glass. As the glass is heated to 600-700°C, these nonhomogeneities gradually increase in size reaching dimensions of 1 μ and greater. X-ray phase analysis shows no crystalline phase. These data are confirmed by differential thermal analysis. The process by which fluorine is integrated into the silicate lattice during melting of the charge is discussed as well as the separation of fluorine during cooling. Liquation in this case should apparently be considered an independent phase process instead of merely a

L 40338-66

ACC NR: AP6007522

phenomonon which precedes crystallization.¹⁵ Initiation of crystallization in this glass is determined chiefly by an increase in the area of the phase interface. Orig. art. has: 2 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 011/ OTH REF: 008

L 40339-66 EWT(m)/EWP(e) WH/WW

ACC NR: AP6007523

(A)

SOURCE CODE: UR/0419/65/000/002/0046/0051

AUTHOR: Kitavharodski, I. I. (Deceased); Kuz'myankow, M. I.; Havarushka, Z. I.; Zhunina, L. A.; Yahlow, V. M.

ORG: None

TITLE: Mechanism responsible for conversion of glass to pyroceramic in members of the isomorphic series of the $\text{CaO-MgO-SiO}_2 + (\text{R}_2\text{O}; \text{R}_2\text{O}_3)$ system

SOURCE: AN BSSR. Vestsi. Seryya khimichnykh navuk , no. 2, 1965, 46-51

TOPIC TAGS: silicate glass, solid solution, calcium compound, mangesium compound, ceramic material, pyroceramic

ABSTRACT: A method is proposed for using plentiful minerals as raw materials for production of economic pyroceramics with a pyroxene composition and excellent physical, mechanical, thermal and anticorrosion properties. The phase diagram of the CaO-MgO-SiO_2 system is used as a base with addition (above 100 wt.%) of H_2O and R_2O_3 in the form of Na_2O , Al_2O_3 and Fe_2O_3 . This ternary system has a pyroxene field containing a continuous series of diopside-enstatite solid solutions. There is a good basis for assuming that a continuous isomorphic series passes through the entire system. This is important from the standpoint of synthesizing pyroceramics based on multicomponent raw materials (e. g. clay) since all components appearing in the original raw material

L 40339-66

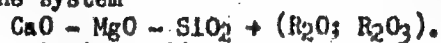
ACC NR: AP6007523

enter the crystalline structure of the pyroxene solid solution during conversion of the glass to pyroceramic in the isomorphic series. The glass was founded in 1-liter quartz crucibles in a gas furnace at a maximum temperature of 1450-1470°C. The optimum compositions were founded in 25-kg crucibles. The experimental specimens were subjected to gradient crystallization and heat treatment under various conditions (2, 4 and 6 hours at 600-1000°C). The pyroceramic products are subjected to comprehensive x-ray, electron microscope, petrographic and extraction analysis. The results show that pyroceramic conversion of pyroxene glass, synthesized from nonmetallic raw materials is a continuously variable process. Continuous interaction between the structural complexes in the glass during heat treatment results in a pyroxene phase of variable composition. Thermograms of the glass are given. Orig. art. has: 3 figures

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 013/ OTH REF: 001

KITAYGORODSKIY, I.I. [Kitaiharodski, I.I.] (deceased); KUZ'MENKOV, M.I.
[Kuz'miankou, M.I.]; GOVORUSHKO, Z.I. [Havarushka, Z.I.];
ZHUNINA, L.A.; YAGLOV, V.N. [Iahlou, V.M.]

Mechanism underlying the microcrystallization of glasses located
in the isomorphic region of the system



Vestsi AN BSSR.Ser.khim.nav. no.2:46-51 '65.

(MIRA 18:12)

ZHUNINA, L.A.; SHARAY, V.N.; TSITKO, V.F.; KHRIPKOVA, N.N.

Crystallization of glasses of a composition $\text{CaO} - \text{MgO} - \text{Al}_2\text{O}_3 - \text{SiO}_2$
in presence of Cr_2O_3 with the formation of a stable pyroxene phase.
Stekloobr. sost. no.1:178-180 '63. (MIRA 17:10)

ZHUNINA, L. A.; SHARAY, V. N.; KHRIPKOVA, N. N.; LUKYANOVA, T. T.

3

"On some structural peculiarities of $\text{CaO-MgO-SiO}_2\text{-(R}_2\text{O, R}_2\text{O}_3\text{)}$ system glasses."

report submitted for 4th All-Union Conf on Structure of Glass, Leningrad,
16-21 Mar 64.

BEZBORODOV, M.A., akademik, prof., doktor tekhn.nauk; MAZELEV, L.Ya., dotsent,
kand.tekhn.nauk; ZHUNINA, L.A., dotsent, kand.tekhn.nauk

Research work on the chemistry and technology of silicates in 1936-
1956. Sbor.nauch.trud. Bel.politekh.inst. no.66:91-116 '57.

(MIRA 16:9)

1. Akademiya nauk Belorusskoy SSR (for Bezborodov).

BOBKOVA, N.M., red.; YERMOLENKO, N.N., red.; ZHUNINA, L.A., red.

[New types of glass and glass materials] Novye stekla i steklo-materialy. Minsk, Nauka i tekhnika, 1965. 174 p.

(MIRA 18:11)

1. Minsk. Belorusskiy politekhnicheskii institut.

KITAYGORODSKIY, I.I. [Kitaiharodski, I.I.] (deceased); ZHUNINA, L.A.;
KUZ'MENKOV, M.I. [Kuz'miankou, M.I.]

Mechanism underlying the microcrystallization of glasses
located in the liquation section of the system
 $\text{CaO} - \text{MgO} - \text{SiO}_2 + (\text{R}_2\text{O}; \text{R}_2\text{O}_3)$. Vestsi AN BSSR. Ser. Khim. nav.
no. 2:41-45 '65. (MIRA 18:12)

YAGLOV, V.N. & ZHURINA, L.A.

Determination of the optimum amount of crystallisation
stimulant by means of differential-thermal analysis.

Vestsi AN BSSR. Ser. khim. nav. no. 2:127-130 '65.

(MIRA 18:12)

L 11852-66 EWP(e)/EWT(m)/EWP(b) GS/RH

ACC. NR: AT6000512

SOURCE CODE: UR/0000/85/000/000/0404/0407

AUTHOR: Zhunina, L. A.; Sharay, V. N.; Mazurenko, V. D.; Khripkova, N. N.; Luk'yanova, I. I.

ORG: None

TITLE: Certain structural features of the products of crystallization of the $\text{CaO-MgO-SiO}_2 + (\text{R}_2\text{O}, \text{R}_2\text{O}_3)$ system

SOURCE: Vsesoyuznoye soveshchaniye po stekloobraznomu sostoyaniyu, 4th, Leningrad, 1964. Stekloobraznoye sostoyaniye (Vitreous state); trudy soveshchaniya, Leningrad, Izd-vo Nauka, 1965, 404-407

TOPIC TAGS: catalyzed crystallization, glass property, silicate glass, glass

ABSTRACT: The article presents some data gathered during the study of the catalyzed crystallization within the glasses of the CaO-MgO-SiO_2 system. Products of thermal processing were studied by extracting various oxides in 2n sulfuric acid and by x-ray, petrographic, thermographic, and electron microscope methods. Results concerning the oxide content in glasses made from chemically pure reagents (Pch) and those having a small sodium fluoride admixture (66) are shown in graphs. Analysis of all the results shows that the heterogeneous

L 11852-66

ACC NR: AT6000512

crystallization of the glasses in the system studied follows the pattern of complex solid solution formation. Orig. art. has: 2 figures.

SUB CODE: 11,20,07 / SUBM DATE: 22 May 65 / ORIG REF: 007

Card 2/2

hw

ZHUKHO, V.

O Transporternoy Pechi Inzh. Nemirovskogo, Goryuchiye Slantsy, 1935,
No. 1, 30

SO:

Goryuchiye Slantsy # 1934-35, TN .871
G .74

CO

21

Laboratory coke oven. V. I. ZHUKOV and N. S. CHVAINOV. Russ 23,148, Oct. 31, 1931.

ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION

21

Regenerative coke oven. V. I. ZHURKO. Russ. 23,805, June 28, 1931. Construc-
tion details.

ASR-55A DETALLURGICAL LITERATURE CLASSIFICATION

ZHUNKO V. SHAMIS I., AND ZAGLODIN I.

Goryuchiye Slantey

Gazogenerator Dlya Slantzev S Zhidkim Shlakoudaleniym, Goryuchiye Slantey,
1933, No. 3, 13.

SO: Goryuchiye Slantey #1934-35 TN. 871 074

ZHUNKO V.

Lazebnik L, and Zaglodin L. Ukруп-nenno-Laboratornaya Ustanovka Dlya Termicheskogo Razlozheniya Slantsev I Polucheniya Slantsevogo Bituma, Goryuchiye Slantsy, 1933, No. 4, 49.

SO: Goryuchiye Slantsy #1934-35 TN. 871 G74

ZHUNKO V. AND ZAGLODIN L.

Pech' Dlya Polucheniya Bytovogo Gaza iz Slantsa, Goryuchiye Slantsy, 1933,

No. 5, 48, No. 6, 36.

SO; Goryuchiye Slantey #1934-35 TN. 871 G74

ZHUNKO, V.

V. ZHUNKO L. ZAGLODIN AND L. LAZEBNIK

Pervyy Vssr Opytnyy Slantsepergonnyy Zavod Na Kashpirez Goryuchiye
Slantsy, 1933, No 5, 64

SO:

Goryuchiye Slantsy # 1934-35, TN .871
G .74

11-1.2 108 PE

21

CA

PROCESSES AND PROPERTIES INDEX

Tar settler. V. I. Zhurko, L. S. Zagladin and L. P. Lazebnik. Russ. 33, 1954, Jan. 31, 1954. Construction details of a tar-water separator.

ASB-35A METALLURGICAL LITERATURE CLASSIFICATION

FROM STATION

STATION NO

DATE

TIME

REMARKS

11-1.2 108 PE

CA

Regenerative coke oven. V. I. Zhurav. Russ. 31,516.
Feb. 28, 1934. Construction details.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

100000 01 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

27

CA

PROCESSING AND PREPARATION

The gasification of shale in gas producers. L. Zagladin, V. Zhurav, L. Lazebnik and N. Shamis. *Gor-yuchis Sluzhba* 49 No. 4 21-32 (1954).—Expts. on gasification of the shale in (1) a producer with a low-temp. carbonization chamber, (2) in a thin layer, (3) in producers with a reversed process; indicate that none of these methods is suitable. A. A. Bozhilnyk

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SECTION	SUBSECTION	CLASSIFICATION	REMARKS
1	1	1	
2	2	2	
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100	100	100	

1ST AND 2ND GROUPS		3RD AND 4TH GROUPS		5TH AND 6TH GROUPS		7TH AND 8TH GROUPS		9TH AND 10TH GROUPS		11TH AND 12TH GROUPS		13TH AND 14TH GROUPS		15TH AND 16TH GROUPS		17TH AND 18TH GROUPS		19TH AND 20TH GROUPS		21ST AND 22ND GROUPS		23RD AND 24TH GROUPS		25TH AND 26TH GROUPS		27TH AND 28TH GROUPS		29TH AND 30TH GROUPS		31ST AND 32ND GROUPS		33RD AND 34TH GROUPS		35TH AND 36TH GROUPS		37TH AND 38TH GROUPS		39TH AND 40TH GROUPS		41ST AND 42ND GROUPS		43RD AND 44TH GROUPS		45TH AND 46TH GROUPS		47TH AND 48TH GROUPS		49TH AND 50TH GROUPS		51ST AND 52ND GROUPS		53RD AND 54TH GROUPS		55TH AND 56TH GROUPS		57TH AND 58TH GROUPS		59TH AND 60TH GROUPS		61ST AND 62ND GROUPS		63RD AND 64TH GROUPS		65TH AND 66TH GROUPS		67TH AND 68TH GROUPS		69TH AND 70TH GROUPS		71ST AND 72ND GROUPS		73RD AND 74TH GROUPS		75TH AND 76TH GROUPS		77TH AND 78TH GROUPS		79TH AND 80TH GROUPS		81ST AND 82ND GROUPS		83RD AND 84TH GROUPS		85TH AND 86TH GROUPS		87TH AND 88TH GROUPS		89TH AND 90TH GROUPS		91ST AND 92ND GROUPS		93RD AND 94TH GROUPS		95TH AND 96TH GROUPS		97TH AND 98TH GROUPS		99TH AND 100TH GROUPS																																																																																																					
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ca

81

Coke oven of the Moegirohoku type. A. Agroskin and V. Zhunko, Khim. Tverogo Topiva 3, 66-76 (1934).--- Construction details. A. A. Bachtling

ASM-A Metallurgical Literature Classification

CA

Coke oven. V. I. Zhurko and L. S. Zagladin. Russ.
41,490, Feb. 28, 1935. Construction details of an oven,
equipped for coking, cracking and dista.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

EDSON SYMBLYN

EDSON SYMBLYN

EDSON SYMBLYN

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100																			
CA										22									
PROCESSING AND PROPERTIES INDEX																			
<p>Apparatus for cracking tar vapors. V. I. Zhurav and L. S. Zagladin. Russ. 43,020, Mar. 31, 1916. Tar-contg. gases from coke ovens are passed together with steam or air through cracking and gasification chambers placed at the head of the oven.</p>																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
FROM: SYNTHESE																			
SYNOPSIS																			
ABSTRACT																			
REFERENCES																			
NOTES																			

[illegible]

Vertical coking oven. Y. I. Zhurko and L. S. Zagladin.
Russ. 43,970, May 31, 1955. Construction details.

1ST AND 2ND CODES										3RD AND 4TH CODES									
PROCESSES AND PROPERTIES INDEX																			
<p>Continuous vertical coke oven. V. I. Zhuravskiy and L. S. Zagladin. Russ. 44,563, Oct. 31, 1955. The oven is equipped with sep. cracking and distn. chambers which are connected by means of openings provided in heated walls that contain fire gas canals terminating in the hearth and connected with preheaters.</p>																			
<p>21</p>																			
<p>ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
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PROCESS AND PROPERTIES INDEX	
1ST AND 2ND DEPT'S	3RD AND 4TH DEPT'S
<p><i>ea</i></p> <p>Low-temperature carbonization with superheated steam. I. Zhunko and L. S. Zagladin. Russ. 46,009, April 20, 1965. The gas-steam mist, leaving the carbonization chambers is washed and compressed to increase its temp., and passed through a tar separator into a heat exchanger to produce steam for the low-temp. carbonization. The condensate obtained in the heat exchanger is used for washing the steam-gas mist, before the compression, while the wash waters, after separation from tar, are passed into heat exchangers for evaporation.</p>	<p>21</p>
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>	
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>	

Vertical gas producer. V. I. Zhurka and L. S. Zagladin. Russ. 47,035. May 31, 1935. Construction details.

Ca

Vertical coke oven. V. I. Zhukov and L. S. Zagladin.
Russ. 47,648, July 31, 1950. Construction details.

21

COMMON ELEMENTS

COMMON VARIABLES

OPEN

MATERIALS

ASS. S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

EXPERIMENTAL